

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Currently Amended) A method of modulating an activity of Rad in a cell, the method comprising modulating the level of nm23 in the cell by administering to the cell a polypeptide that comprises at least 60% sequence identity with a coding region of SEQ ID NO:3 or 5, wherein the polypeptide has at least one nm23 biological activity selected from the group consisting of (1) binding to Rad; (2) promoting a Rad activity; (3) nucleotide diphosphokinase activity; and (4) inhibiting the binding of Rad and nm23.

3. (Currently Amended) The method of claim 2, wherein the ~~level of nm23 is modulated by administering an nm23 polypeptide comprises a coding region of SEQ ID NO:3 or 5 to the cell.~~

4. (Withdrawn, Currently Amended) The method of claim 2, wherein the level of nm23 is modulated by administering an ~~nm23 polypeptide encoding nucleic acid to the cell a nucleic acid encoding a polypeptide that comprises at least 60% sequence identity with a coding region of SEQ ID NO:3 or 5, wherein the polypeptide has at least one biological activity selected from the group consisting of (1) binding to Rad; (2) promoting a Rad activity; (3) nucleotide diphosphokinase activity; and (4) inhibiting the binding of Rad and nm23.~~

5. (Withdrawn, Currently Amended) A method for screening for a test compound that modulates the a Rad-nm23 interaction, the method comprising:

(a) providing a Rad polypeptide comprising a coding region of SEQ ID NO:1 or an nm23-binding fragment thereof, an nm23 polypeptide comprising a coding region of SEQ ID NO:3 or 5 or a Rad-binding fragment thereof, and a test compound; and

(b) detecting an interaction between the Rad polypeptide and the nm23 polypeptide, wherein a difference in the interaction between the Rad polypeptide and the nm23 polypeptide in the presence of the test compound, compared to in the absence of the test compound, is indicative of a compound that modulates the Rad-nm23 interaction.

6. (Withdrawn) The method of claim 5, wherein the Rad polypeptide or the nm23 polypeptide are provided as a purified polypeptide preparation.

7. (Withdrawn) The method of claim 5, wherein the Rad polypeptide and the nm23 polypeptide are provided as purified polypeptide preparations.

8. (Withdrawn) The method of claim 6 or 7, wherein the Rad polypeptide, nm23 polypeptide, and the test compound are provided in vitro.

9. (Withdrawn) The method of claim 5, wherein the Rad polypeptide or the nm23 polypeptide provided in (a) are expressed in a cell.

10. (Withdrawn) The method of claim 5, wherein the Rad polypeptide and the nm23 polypeptide provided in (a) are expressed in a cell.

11. (Withdrawn) The method of claim 9 or 10, wherein the test compound is contacted with the cell.

12. (Withdrawn, Currently Amended) The method of claim 5, wherein detecting ~~the~~ an interaction between the Rad polypeptide and the nm23 polypeptide comprises detecting binding of Rad to nm23.

13. (Withdrawn, Currently Amended) The method of claim 5, wherein detecting ~~the~~ an interaction between the Rad polypeptide and the nm23 polypeptide comprises detecting a modification of Rad or nm23.

14. (Withdrawn) The method of claim 13, wherein the modification is phosphorylation of nm23.

15. (Withdrawn, Currently Amended) The method of claim 5, further comprising (c) administering the compound to an animal and optionally (d) evaluating ~~the~~ an in vivo effect of the compound on the animal.

16. (Withdrawn, Currently Amended) The method of claim 15, wherein evaluating ~~the~~ an in vivo effect of the compound comprises evaluating cell growth in the animal.

17. (Currently Amended) The method of claim ~~[[3]]~~ 2, wherein the nm23 polypeptide is comprises a biologically active fragment of a ~~naturally occurring nm23 protein~~ a coding region of SEQ ID NO:3 or 5.

18. (Previously Presented) The method of claim 17, wherein the fragment is at least 5 amino acids in length.

19. (Previously Presented) The method of claim 17, wherein the fragment is at least 10 amino acids in length.

20. (Previously Presented) The method of claim 17, wherein the fragment is at least 20 amino acids in length.

21. (Previously Presented) The method of claim 17, wherein the fragment is at least 50 amino acids in length.

22. (Previously Presented) The method of claim 17, wherein the fragment is at least 100 amino acids in length.

23. (Previously Presented) The method of claim 17, wherein the fragment is at least 150 amino acids in length.

24. (Currently Amended) The method of claim [[3]] 2, wherein the ~~nm23~~ polypeptide has at least 70% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

25. (Currently Amended) The method of claim 24, wherein the ~~nm23~~ polypeptide has at least 80% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

26. (Currently Amended) The method of claim 24, wherein the ~~nm23~~ polypeptide has at least 90% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

27. (Currently Amended) The method of claim 24, wherein the ~~nm23~~ polypeptide has at least 95% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

28. (Currently Amended) The method of claim 24, wherein the ~~nm23~~ polypeptide has at least 96% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

29. (Currently Amended) The method of claim 24, wherein the ~~nm23~~ polypeptide has at least 97% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

30. (Currently Amended) The method of claim 24, wherein the ~~nm23~~ polypeptide has at least 98% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

31. (Currently Amended) The method of claim 24, wherein the ~~nm23~~ polypeptide has at least 99% amino acid sequence identity with ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

32. (Currently Amended) The method of claim [[3]] 2, wherein the ~~nm23~~ polypeptide differs in amino acid sequence at up to 5 residues from the corresponding residues in ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

33. (Currently Amended) The method of claim [[3]] 2, wherein the ~~nm23~~ polypeptide differs in amino acid sequence at up to 10 residues from the corresponding residues in ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

34. (Currently Amended) The method of claim [[3]] 2, wherein the ~~nm23~~ polypeptide differs in amino acid sequence at up to 5% of the residues from ~~a naturally occurring nm23 amino acid sequence a coding region of SEQ ID NO:3 or 5.~~

35. (Currently Amended) The method of claim [[3]] 2, wherein the ~~nm23~~ polypeptide differs in amino acid sequence at up to 10% of the residues from ~~a naturally occurring nm23 amino acid sequence~~ a coding region of SEQ ID NO:3 or 5.

36. (Currently Amended) The method of claim [[3]] 2, wherein the ~~nm23~~ polypeptide is an nm23H1 polypeptide having at least 60% identity with a coding region of SEQ ID NO:3.

37. (Currently Amended) The method of claim [[3]] 2, wherein the ~~nm23~~ polypeptide is an nm23H2 polypeptide having at least 60% identity with a coding region of SEQ ID NO:5.